

REMARKS

Claims 1 and 27-37 have been rejected under 35 USC §102(e) as anticipated by Thompson (U.S. Patent No. 6,433,749), while Claims 2-26 have been rejected under 35 USC §103(a) as unpatentable over Thompson. By the foregoing amendment, Claims 1, 10-18 and 22-26 have been cancelled. For the reasons set forth hereinafter, Applicant respectfully submits that all claims remaining of record in this application distinguish over the Thompson reference, whether considered separately or in combination with other references of record.

The present invention is directed to an antenna arrangement for a motor vehicle having a number of antennas for different functions and for operation at different frequencies. With the rising number of communication systems which are being incorporated into vehicles, it has become increasingly difficult in order to accommodate all of the necessary antennas without cluttering the appearance of the vehicle, and without placing the antennas in such a position that they interfere with each other.

The present invention solves this problem by incorporating the respective antennas into the vehicle body in a manner which permits them to be dispersed about the surface of the vehicle body, without impairing its visual or aerodynamic qualities. In particular, according to the invention, vehicle

antennas are disposed either in existing cutouts or openings in the vehicle outer skin, or are incorporated into panelling elements which are conventionally mounted on the vehicle outer skin. Specifically, Claim 2 recites that an antenna is arranged in a ventilation opening which is embodied as a cutout in the vehicle skin. Claim 3, on the other hand, recites that the antenna is arranged in a cutout comprising a joint at which individual components of the vehicle outer skin adjoin one another, and Claim 5 recites that the antenna comprises a cutout formed by a slot in the vehicle skin, with the slot being dimensioned such that the slot itself forms a slot antenna. Claim 9, on the other hand, recites that at least one panelling element is mounted on the vehicle outer skin and that at least one antenna is arranged in or under the panelling element so mounted. Claim 19 further specifies that the panelling element is a decorative element or a protective moulding. Independent Claims 27 and 33 are similar limited.

The Thompson reference, on the other hand, discloses an antenna module comprising a plurality of antennas which can be configured to be mounted on or to conform to the surface of a vehicle, as indicated in the Abstract of the Disclosure, and at Column 2, lines 32-35 and 45-47. In particular, as noted at Column 2, lines 63-67, the antenna module may consist of a pod or other structure that is shaped to conform to a radio transparent inner surface of a vehicle component such as a window, trunk lid, roof, etc. As noted at Column 3, lines 34-41, a vehicle which utilizes composite panels presents a larger number of options from mounting positions. One example which is cited is that the

mounting pod could be incorporated in the "fairing" which is frequently found on the cab of an articulated tractor unit to reduce turbulence. In addition, it is also noted that the pod could also be mounted behind the bumper or one of the fiberglass body panels of a truck cab.

It is apparent from the foregoing brief description that Thompson teaches the general concept of mounting a vehicle antenna at various locations about the surface of the vehicle. Nowhere, however, does this reference teach or suggest arranging the vehicle antenna in a ventilation opening as recited in Claim 2, in a joint at which individual body components of the vehicle join one another, as recited in Claim 3 or in a slot in the vehicle outer skin, with the slot having dimension such that the slotted cell forms an antenna, as recited in Claim 5. In addition, Thompson also fails to teach or suggest incorporating the antenna into a panelling element mounted into or under the vehicle outer skin in a planar fashion, as recited in Claim 9, or where the panelling element is a decorative element or a protective moulding, as recited in Claim 19. Finally, Thompson also fails to suggest an arrangement in which at least one antenna is formed by a panelling element, including a decorative element or a protective moulding, as recited in Claims 20 and 21. The latter limitations are also recited in independent claims 27 and 33.

With regard to the latter claims, the Office Action states at paragraph 4 (page 3) that it would have been obvious to one skilled in the art to employ any

portion of the car body to mount an antenna flush with the skin or a thin panel mounted thereon. However, Applicant respectfully submits that with the specific locations of the vehicle antenna recited in the claims as described above, the applicant has solved a previously unsolved problem in an inventive manner by a novel placement of the antenna. Since nothing in the Thompson reference in any way suggests incorporating the antenna, for example, into a ventilation opening of the vehicle, into a joint between elements of the vehicle body, or into a slot of the vehicle body outer skin, with the slot being dimensioned such that the slot itself forms an antenna, Applicant respectfully submits that independent Claims 2, 3 and 5 distinguish over the Thompson reference.

Similarly, in the absence of anything in any of the references which teaches or suggests the incorporation of the antenna into a decorative panel element or protective moulding, as recited in Claims 9 and 19, the latter claims are believed to be allowable as well. Moreover, as noted previously, independent Claims 27 and 33 repeat the same limitations referred to previously, and are therefore allowable for the same reasons.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #225/50993).

Respectfully submitted,

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